

## Solutions

### 1. PHP

```
<?php
if (isset($_GET["level"]) && isset($_GET["cause"])) {
    $level = $_GET["level"];
    $cause = $_GET["cause"];

    $files = glob("*$cause*");
    $file = file($files[0]); //, FILE_IGNORE_NEW_LINES);
    $total = 0;
?
<ul>
<?php
foreach($file as $line) {
    list($name, $amount, $match) = explode(":", $line);
    if (($level == "bronze" && $amount >= 0 && $amount <= 100) ||
        ($level == "silver" && $amount > 100 && $amount <= 500) ||
        ($level == "gold" && $amount > 500)) {

        $total += $amount;
        if ($match == "yes") {
            $total += $amount;
        }
    ?>
    <li><?= $name ?> - <?= $amount ?></li>
    <?php
}
?
</ul>
<p>Total: <?= $total ?></p>
<?php
} else {
?
<p>You must specify both the donation category and the level</p>
<?php
}
?>
```

## 2. JavaScript / DOM

```
var yellow = false;

window.onload = function() {
    document.getElementById("add").onclick = addItem;
    document.getElementById("remove").onclick = removeItem;
}

function addItem() {
    var item = document.createElement("li");
    item.innerHTML = document.getElementById("item").value;
    document.getElementById("list").appendChild(item);
    document.getElementById("item").value = "";
    if(yellow) {
        item.style.backgroundColor = "yellow";
    }
    yellow = !yellow;
}

function removeItem() {
    var item = document.getElementById("item").value;
    var list = document.querySelectorAll("li");
    document.getElementById("item").value = "";
    var found = false;
    for(var i = 0; i < list.length; i++) {
        if(list[i].innerHTML.toLowerCase() == item.toLowerCase() && !found) {
            document.getElementById("list").removeChild(list[i]);
            found = true;
        }
        if(found) {
            if(i % 2 == 0) {
                list[i].style.backgroundColor = "yellow";
            } else {
                list[i].style.backgroundColor = "white";
            }
            yellow = !yellow;
        }
    }
}
```

### 3. Ajax/JSON

```
window.onload = function() {
    document.getElementById("go").onclick = req;
}

function req() {
    var start = document.getElementById("start").value;
    var ajax = new XMLHttpRequest();
    ajax.onload = display;
    ajax.open("GET", "flights2.php?start=" + start, true);
    ajax.send();
}

function display() {
    var noStops = document.getElementById("stops").checked;
    var start = document.getElementById("start").value;
    var dest = document.getElementById("dest").value;
    var div = document.getElementById("results");
    div.innerHTML = "";
    var ajax = JSON.parse(this.responseText);
    var title = document.createElement("h1");
    title.textContent = "Flights from " + start + " to " + dest;
    div.appendChild(title);

    var myAjax = ajax[dest];
    for(var i = 0; i < myAjax["flights"].length; i++) {
        var flight = myAjax["flights"][i];
        if(flight["stops"] == 0 || !noStops) {
            var p = document.createElement("p");
            p.textContent = "$" + flight["price"] + " from " +
                flight["carrier"] + " with " + flight["stops"] +
                " stops";
            if(flight["price"] < 1000) {
                p.style.fontWeight = "bold";
            }
            div.appendChild(p);
        }
    }
}
```

#### 4. SQL

```
SELECT DISTINCT l.language FROM languages l
JOIN languages l2 ON l.language = l2.language
JOIN countries co1 ON l.country_code = co1.code
JOIN countries co2 ON l2.country_code = co2.code
JOIN cities ci1 ON co1.code = ci1.country_code
JOIN cities ci2 ON co2.code = ci2.country_code
WHERE ci1.population > 1000000 AND ci2.population > 1000000
    AND co1.code <> co2.code AND l.official = TRUE AND l2.official = TRUE
    AND co1.independence_year > 1900 AND co2.independence_year > 1900
ORDER BY l.language
```